REMARKS/ARGUMENTS

The Office Action of January 6, 2005, and the Advisory Action of April 14, 2005, have been carefully reviewed and this response addresses the Examiner's concerns stated in the Office Action and Advisory Action. All objections and rejections are respectfully traversed.

I.   STATUS OF THE CLAIMS

Claims 1-35 and 37-64 are currently pending. Claim 36 was previously canceled without prejudice. Claim 64 has been added. Support for claim 64 can be found throughout the specification. No new matter has been added.

Claims 1, 23-25, 27-34,59-60, and 62 are rejected under 35 U.S.C. 102(e) as being anticipated by Kekic et al., U.S. Patent # 6,664,978, issued on December 16, 2003 (Kekic).

Claims 2-22, 26, 35, 37-58, 61, and 63 are rejected under 35. U.S.C. 103(a) as being unpatentable over Kekic in view of Barrack et al., U.S. Patent # 6,047,279, issued on April 4, 2000 (Barrack).

Claims 1-5, 18-23, 25-28, 32-35, 43-50, 56-59, and 63 are amended herein.   .
Support for the claim amendments can be found, for example, on page 14, line 13, of the Applicant's specification. No new matter is added.

II.   PETITION FOR A TWO-MONTH EXTENSION OF TMIE

A Petition for a two-month extension and an extension fee of $450 for a large entity is attached hereto. Applicant notes that the response, due to be timely filed on April 6, 2005, and with a 2-month extension, is being timely filed on June 6, 2005.

III.   REJECTION OF CLAIMS 1, 23-25, 27-34, 59-60 and 62 UNDER 35 USC § 102(e) AS BEING ANTICIPATED BY KEKIC

Please note that Applicant presents the following arguments, with a few exceptions, in the order in which the claim rejections appear in the Office Action. Applicant has provided headings for the independent claim arguments in order to help Examiner navigate this response.

Applicant respectfully points out that "[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628 (CAFC, 1987), M.P.E.P. § 2131. As provided by the remarks set forth below, clearly this is not the case with the present rejection of the claims. In summary, Kekic does not anticipate Applicant's invention because:

(1)   Nowhere does Kekic disclose or suggest Applicant's claimed at least one poll service that includes at least one state model (claim 1); and

(2)   Nowhere does Kekic disclose or suggest Applicant's claimed dynamic definition and modification of the state model and poll service at run-time (claims 32-34); and

(3)   Nowhere does Kekic disclose or suggest Applicant's claimed user-defined number of consecutive polls (claim 59).

Note that claims 2-34 depend on claim 1, and claims 60-63 depend on claim 59.

In the following analysis, Applicant assumes that the Office Action draws an analogy between the element manager of Kekic and the state model of Applicant. This assumption is based on language in Kekic and in Applicant's specification as follows.

In col. 6, lines 37-47, Kekic states that the network management system of his invention is two applications in one: a visual element manager builder and a manager. Kekic goes on to state that device vendors or network managers may create standardized element management applications, called *element managers, which monitor and manage network behavior* in the run-time environment provided by the other application, the manager.

Applicant claims, in amended claim 1, a method for implementing a *state model for managing a network.*

Independent claim 1

The Office Action, on pages 2-3, with respect to claim 1, states that Kekic discloses a method for implementing a state model for managing at least one distributed network element communicatively coupled to a central management system, said method comprising:

presenting a user interface for said central management system to enable a user to define at least one poll service that includes at least one of said at least one state model (abstract, col. 5, lines 40-51, col. 19, lines 25-58, col. 39, lines 9-26); and

executing said at least one poll service to manage said at least one network element (col. 19, lines 25-58 and col. 77, lines 1-35).

Applicant asserts that Kekic does not have an equivalent concept to Applicant's poll service. In fact, Kekic teaches away from a poll service that includes at least one state model. In the system of Kekic, the element manager creates management objects 416 and the poll server 417 creates poll events 411, and the management objects 416 and poll events 411 interact with each other (see FIG. 4), but nowhere does Kekic disclose or suggest that the poll server includes the element manager. Kekic states that the poll server is created by a discovery engine after a network element is associated with an element manager: "If the discovery engine is able to associate the computer network element with one of the plurality of element managers, the discovery engine calls a process that uses the element manager to create a managed element object, and creates a poll server and an event engine for the managed computer network element (col. 6, lines 61 – col. 7, line 6). Further, the poll server of Kekic doesn't manage the network element but simply polls it, whereas the poll service of Applicant manages at least one network element.

Since Kekic does not anticipate each and every step of Applicant's amended claim 1, from which other rejected claims 23-25 and 27-34 depend, either expressly or inherently, Applicant's amended claim 1 (as well as claims 2-34 that depend, either directly or indirectly, therefrom and that further define the invention) is not anticipated by Kekic, and a rejection under 35 U.S.C. § 102(e) is inappropriate. Applicant asserts that amended claim 1 (as well as amended claims 2-34 that depend, either directly or indirectly, therefrom) is now in condition for allowance. Applicant respectfully requests the withdrawal of rejections under 35 U.S.C. § 102(e) with regards to amended claim 1, and claims 2-34 that depend, either directly or indirectly, therefrom, for the reasons set forth above. Furthermore, a 35 U.S.C. § 103 rejection of these claims would be inappropriate as well. Applicant's claimed invention is not an obvious extension of the use of Kekic to meet Applicant's patentable limitations.

To further Applicant's position of the patentability of rejected claims 32-34, Applicant notes the following.

The Office Action, on pages 4-5, with respect to **claims 32-34**, states that Kekic discloses

(claim 32) wherein said management system enables a user to dynamically define said at least one poll service during runtime (col. 6, lines 43-47 and col. 19, lines 25-58).

(claim 33) wherein said management system enables a user to dynamically define said at least one state model during runtime (col. 6, lines 43-47 and col. 19, lines 25-58).

(claim 34) wherein said management system enables a user to dynamically modify an existing poll service or state model during runtime (col. 6, lines 43-47 and col. 19, lines 25-58).

Kekic teaches away from Applicant's claimed said management system enabling a user to dynamically define said at least one poll service and said at least one state model and modify existing poll service or state model during runtime.

First, Kekic states that after an element manager is created, "a user can test and verify the element manager's accuracy using managed element server 314. After the element manager has been fully tested, a device manufacturer can distribute managed element server 314 and the element manager along with the device to customers of the device manufacturer. The customers can use server 314 and the element manager to monitor/manage the device, or to customize and further refine the network management strategy built into the element manger" (col. 28, lines 13-22).

Then Kekic states that the element manager itself can't be modified, but an instance of the element manager, the currently managed element, is where the modifications are applied. "Even after an element manger has been associated with a computer network element, the rule-based event management model for the managed element can be changed. In this case, *modifications apply only to the currently managed element, **not** to the element manager itself*, i.e., the changes are made in the managed element object. The pieces of the model or state machine, which includes states, events, and rules for each element component, are the only attributes of the managed element which may be modified. Other attributes, like number and kind of hotspots and their associated MIB variables, may not be changed except by editing the element manger itself" (col. 51, lines 39-51).

In summary, in the system of Kekic, an element manager is created, tested, and delivered. Sequentially following the delivery, in the run-time environment, an element

manager instance known as the currently managed element can be created and later modified, but the element manager itself cannot be modified in the run-time environment. In the systems of Kekic and Applicant, the element manager and the state model, respectively, manage a network through the management of network elements. In the system of Kekic, the currently managed element, an instance of the element manager, can be dynamically modified, but definition and modification of the element manager must follow the procedure stated above. On the contrary, in the system of Applicant, the state model itself can be dynamically defined (claim 1) and modified (claim 34) during runtime.

Independent claim 59

On page 5, with respect to independent claim 59, from which claims 60-63 depend, the Office Action states that Kekic discloses a method for performing state-based management of a network, wherein network elements are managed based on their state, said method comprising:

executing at least one user-defined state model for managing at least one network element based on a determined state of said at least one network element, wherein said executing at least one user-defined state model includes polling said at least one network element for data, evaluating said data to determine whether a user-defined state transition condition is satisfied, and triggering a state transition if said user-defined state transition condition is satisfied for a user-defined number of consecutive polls of said at least one network element (col. 19, lines 25-28; col. 36, lines 33-67; and col. 37, lines 1-4).

Applicant can find no disclosure or suggestion in the referenced passages of Kekic or elsewhere in Kekic of Applicant's claimed user-defined number of consecutive polls of said at least one network element. Kekic states that "[A]a poll event in a managed element object contains information on a set of attributes that need to be polled, a default polling interval, a current polling interval that is being used, and a set of flags that are used to determine if polling is turned on or off for the event, and if the polling results are to be logged." (col. 17, lines 42-54). Kekic further states that "[T]he user can specify, using client 391, different polling intervals for polling event p1 in states s1 and s2" (col. 19, lines 44-46). Kekic still further states that "[T]the polling interval is the time between a polling response and the next polling request. While the polling request is generated at the specified time interval, no guarantees can be made regarding the timeliness of the response to the request. A longer polling interval should be used for table MIBs since the

SNMP agent typically takes longer to return all the values for a table. Sometimes, SNMP agents may return incomplete tables (especially when the tables are big) if the polling interval is too short" (col. 38, lines 39-48). However, while Kekic supplies copious information about a polling interval, nowhere does Kekic disclose or suggest a user-defined number of consecutive polls.

Kekic, on the contrary, teaches away from the need for a user-defined number of consecutive polls by stating that "[T]to prevent a rule action from taking place until the condition has been satisfied more than once, the number of times the condition must be consecutively true is entered in frequency field 2406" (col. 41, lines 57-60). User definition of both the number of consecutive polls and the number of times a condition must be consecutively true could cause conflicting and confusing results.

Since Kekic does not anticipate each and every step of Applicant's amended method claim 59, from which claims 60-63 depend, either expressly or inherently, Applicant's amended claim 59 (as well as claims 60-63 that depend, either directly or indirectly, therefrom and that further define the invention) is not anticipated by Kekic, and a rejection under 35 U.S.C. § 102(e) is inappropriate. Applicant asserts that amended claim 59 (as well as claims 60-63 that depend, either directly or indirectly, therefrom) is now in condition for allowance. Applicant respectfully requests the withdrawal of rejections under 35 U.S.C. § 102(e) with regards to amended claim 59, and claims 60-63 that depend, either directly or indirectly, therefrom, for the reasons set forth above. Furthermore, a 35 U.S.C. § 103 rejection of these claims would be inappropriate as well. Applicant's claimed invention is not an obvious extension of the use of Kekic to meet Applicant's patentable limitations.

IV.   REJECTION OF CLAIMS 2-22 AND 26, 35, 37-58, 61 and 63 UNDER 35 USC § 103 AS BEING UNPATENTABLE OVER KEKIC IN VIEW OF BARRACK

In order for a rejection under 35 U.S.C. §103 to be sustained, the Examiner must establish a prima facie case of obviousness and to establish a *prima facie* case of obviousness, there must be some suggestion or motivation, either in the reference itself or in the knowledge generally available to one of ordinary skill in the art, to modify the reference, and the prior art reference must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination must be found in the prior art, not

in Applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Applicant asserts that there is no suggestion or motivation in either Kekic or Barrack to

(1) distribute poll services including state models to distributed polling gateways;

(2) correlate state models;

(3) provide at least one poll service that includes at least one state model;

(4) dynamically define and modify the state model and poll service at run-time; or

(5) provide user-defined number of consecutive polls.

The comments in Section III, for distinguishing over Kekic, also apply here, where appropriate, and will not be repeated.

Independent claim 35

On pages 6-7, in paragraph 4, as per claim 35, the Office Action states that, Kekic discloses a method for enabling state-based management of a network, wherein network elements are managed based on their state, said method comprising:

receiving input from a user at said management system to define at least one poll service that includes at least one of said at least one state model (abstract, col. 5, lines 40-51, col. 19, lines 25-58 and col. 39, lines 9-26);

executing said at least one poll service to manage said at least one network element (col. 19, lines 25-58 and col. 77, lines 1-35).

The Office Action, on page 7, with respect to independent claim 35, states that Kekic does not explicitly disclose at least one distributed polling gateway.

The Office Action states that Barrack discloses a system and method for automatic network management support using artificial intelligence including: at least one distributed polling gateway (col. 2, lines 55-67 and col. 3, lines 1-42).

The shortcomings of Kekic have been discussed and will not be repeated here. Applicant has amended claim 35 to clarify the steps of the process that Applicant follows to manage the network. Specifically, Applicant has added the step of <u>distributing said at least one poll service including said at least one state model to at least one distributed polling gateway that is communicatively coupled with said at least one network element</u>. Support for this amendment can be found on page 14, line 13, of Applicant's specification.

Barrack states that the inventive Intelligent Gateway identifies particular messages from the various devices and systems, extracts relevant information from the message

stream, analyzes data prior to forwarding the events and attributes on for further processing, and sends commands back to the device or system (col. 3, lines 1-17). Barrack also states that a rule engine in the NMS/OSS receives and processes events coming from Intelligent Gateway and elements (col. 3, lines 26-27), and compares the incoming information from Intelligent Gateway with the established rule set for determining the subsequent action to be taken (col. 3, lines 40-42).

Applicant respectfully points out that the rule engine of Barrack executes outside of the Intelligent Gateway and inside the NMS/OSS, for which the Intelligent Gateway acts as a front end. Since neither the element manager of Kekic nor the rule engine of Barrack execute in a gateway, nor do either Kekic or Barrack suggest that the rule engine executes in a gateway, Applicant respectfully points out that neither Barrack, nor Kekic, nor their combination could make obvious Applicant's claimed at least one distributed polling gateway which executes at least one poll service that includes at least one state model to manage at least one network element. Further, Applicant respectfully points out that neither Kekic nor Barrack disclose or suggest the step of distributing poll services including state models to distributed polling gateways. Applicant respectfully notes that this argument applies to the rejection of dependent claims 2-4, 7-8, 10-16, 37, 39-41, 49, 50-54, 56, and 61.

To further Applicant's position of the patentability of rejected claims 19-20, 44-45, and 56, Applicant respectfully points out that neither Kekic, nor Barrack, nor their combination, disclose or suggest correlating various different state models.

On page 15, with respect to dependent **claims 19 and 44**, which depend, indirectly, from claims 1 and 35 respectively, the Office Action states that Kekic further discloses correlating various different state models (col. 19, lines 25-58 and col. 40, lines 43-67). On pages 20-21, with respect to dependent **claims 20 and 45**, which depend from claims 19 and 44 respectively, the Office Action states that Kekic does not explicitly disclose wherein software code executes on at least one distributed polling gateway to perform said correlating. The Office Action further states that Barrack discloses a system and method for automatic network management support using artificial intelligence including wherein software code executes on at least one distributed polling gateway to perform said correlating (col. 2, lines 55-67 and col. 3, lines 1-42). On page 25, with respect to dependent **claim 56**, which depends from claim 48, the Office Action states that Kekic

discloses at least one pattern-based state model executing thereon to correlate various different state models (col. 19, lines 25-58 and col. 40, lines 43-67).

Applicant respectfully refers Examiner to the discussion, that will not be repeated here, of the correspondence between Applicant's state model and Kekic's element manager set forth above. Applicant respectfully points out that in the cited passages, Kekic presents a method for defining rules (col. 40, line 52), and Barrack presents basic if-then-else operators that allow the Intelligent Gateway to analyze the data (col. 3, lines 8-9).

Applicant's claimed correlation of state models and software executing in a distributed polling gateway to perform the correlation are not disclosed or suggested by Kekic or Barrack or their combination. An example of correlation is given in Applicant's specification, page 42, lines 8-14. To correlate state models in the system of Applicant, a user may specify various different state models, for example "CPU Watch", "Memory Watch", and Buffer Watch", to be correlated under certain conditions. For example, a user may specify a cross-correlated state model that is triggered upon "CPU Watch" state model being in state "high" while "Memory Watch" and Buffer Watch" state models are each in state "low". Applicant states that within a state model, a user may define various states, various state transition conditions, and various transition actions (Applicant's specification, page 15, lines 5-6).

Thus, the definition of a rule that includes states, such as Kekic presents, does not make obvious Applicant's claimed correlating state models that each include states, transitions, and conditions. Further, the execution of if-then-else rules in a gateway, as presented by Barrack, also does not make obvious Applicant's claimed correlating state models.

Independent claim 48

Applicant has herein amended independent claim 48 to include the limitation of claim 33. Therefore, Applicant asserts the patentability of amended independent claim 48 with respect to the argument presented above, and not repeated here, with respect to claim 33.

On page 20, with respect to **claim 16**, the Office Action states that Kekic discloses determining that said one or more user-defined state transition conditions are satisfied in a user-defined number of consecutive polls of said at least one network element, then a state

transition for said at least one network element is triggered (col. 19, lines 25-59, col. 36, lines 33-67 and col. 37, lines 1-4). Applicant respectfully refers Examiner to the argument for independent claim 59 previously presented, that will not be repeated here.

On pages 22-23, with respect to **claims 49 and 61**, the Office Action states that Kekic discloses software executing on said central management system to enable a user to define said at least one state model (col. 19, lines 25-58, col. 36, lines 33-67, and col. 37, lines 1-4), and that Barrack discloses a system and method for automatic network management support using artificial intelligence including at least one distributed polling gateway (col. 2, lines 55-67 and col. 3, lines 1-42).

The Office Action does not provide a rejection for the other limitations of claims 49 and 61 including:

wherein once a user defines said at least one state model, it is communicated to said one or more distributed gateways for execution thereon.

Should a rejection be forthcoming, Applicant respectfully refers Examiner to the argument with respect to claim 35, which will not be repeated here.

On pages 23-24, with respect to **claim 50**, the Office Action states that Kekic discloses at least one user-defined poll service that includes one or more of said at least one state model (col. 19, lines 25-58, col. 36, lines 33-67, and col. 37, lines 1-4), and that Barrack discloses a system and method for automatic network management support using artificial intelligence including at least one distributed polling gateway (col. 2, lines 55-67 and col. 3, lines 1-42).

Applicant respectfully reiterates that neither Kekic nor Barrack nor their combination suggests Applicant's claimed poll service that includes one or more of said at least one state model. Applicant respectfully refers Examiner to the argument for claim 1.

On pages 24-25, with respect to **claim 51**, the Office Action states that Kekic discloses software executing on said central management system to enable a user to define said at least one poll service, wherein once a user defines said at least one poll service (col. 19, lines 25-58, col. 36, lines 33-67, and col. 37, lines 1-4), and that Barrack discloses a system and method for automatic network management support using artificial intelligence including at least one distributed polling gateway (col. 2, lines 55-67 and col. 3, lines 1-42).

Applicant respectfully reiterates that neither Kekic nor Barrack nor their combination suggests Applicant's claimed poll service that is communicated to said one or more distributed gateways for execution thereon. Applicant respectfully refers Examiner to the argument for claim 35.

Applicant respectfully reiterates that there is no suggestion or motivation in either Kekic or Barrack to distribute poll services including state models to distributed polling gateways, nor the to correlate state models. Since Kekic and Barrack, separately or in combination, do not teach or suggest each and every step of Applicant's amended independent claim 35, and each and every element of Applicant's amended independent claim 48, either expressly or inherently, Applicant's amended independent claims 35 and 48 (and dependent claims 37-47 and 49-58, which depend, directly or indirectly, from independent claims 35 and 48 respectively) and amended dependent claims 2-22 and 26 are not made obvious by Kekic and Barrack, and a rejection under 35 U.S.C. § 103(a) is inappropriate. Applicant asserts that amended independent claims 35 and 48 (and dependent claims 37-47 and 49-58, which depend, directly or indirectly, from independent claims 35 and 48 respectively) and amended dependent claims 2-22 and 26 are now in condition for allowance. Applicant respectfully requests the withdrawal of the rejection under 35 U.S.C. § 103(a) with regards to amended independent claims 35 and 48 (and dependent claims 37-47 and 49-58, which depend, directly or indirectly, from independent claims 35 and 48 respectively) and amended dependent claims 2-22 and 26 for the reasons set forth above.

V. CONCLUSION

In view of the absence from any cited reference of Applicant's claimed invention as set forth above, Applicant respectfully urges that Kekic and Barrack, separately or in combination, are not sufficient to render the presently claimed invention anticipated or obvious under 35 U.S.C. 102(e) or 35 U.S.C. § 103(a). Applicant asserts that new independent claim 64 is likewise patentable for the reasons set out herein.

Further, since independent claims 1, 35, 48, and 59 are believed to be in condition for allowance, all dependent claims are believed to depend upon allowable independent claims, and are therefore also in condition for allowance.

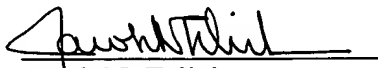One independent claim has been added, but the total number of claims remains the

same as the as-filed number of claims. Therefore, a fee of $200 (large entity, independent claim in excess of three), is enclosed herein. The Commissioner for Patents is authorized to charge any further additional fees or credit overpayment to Deposit Account No. 50-1078.

The following information is presented in the event that a call may be deemed desirable by the Examiner:

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Respectfully submitted,
Semih Secer, Applicant

Date: June 6, 2005

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